a distinct bluish gloss on the wing-coverts and on the back. In the unmarked specimen there is a clear demarcation line between the green crown and the bluish tinge on the back.

Two unsexed specimens from Ecuador without further data and also bought from Schlüter (both of them marked 5652) have a distinct bluish

on the crown and on the back.

A male collected on 18th October, 1883 at 2,000 feet on Mount Roraima, British Guiana (no. 3713) by W. L. S. Laat has a bluish back, breast and abdomen. Here too is a striking difference between the green crown and the bluish of the back.

A male in breeding condition collected on 8th October, 1911 at Paramaribo, Surinam by W. C. van Heurn (no. 2326) has a distinct bluish on the back and, though to a lesser extent, on the wing-coverts; there is also a marked difference between the green crown and the bluish on the back.

A male from Bahia with no further data which died in the Zoo at Rotterdam and received at Leiden in November 1923 (no. 5274) has the head pale bluish-grey as in *virens* and a bluish tinge on the wing-coverts.

The most striking of all, however, is a male imported from an unknown locality which died in the Zoo at Rotterdam, which was received at Leiden

in February 1924 (no. 5308).

It has the bluish-grey head of *T. virens* and on the upper and under parts including the rump it is partly pale blue and partly olive green. It is indeed so striking as to be almost unbelievable that this specimen was not detected before as a hybrid.

In Surinam both T. virens and T. palmarum are among the most nume-

rous birds and they are very often feeding in mixed companies.

André Suchetet does not mention in his Des hybrides sauvages. Vol. I

1896 any hybrids of these two species.

A. P. Gray lists in her *Bird Hybrids* 1958: 244, though this work is rather incomplete where wild birds are concerned, two hybrids of T. *episcopus* (= T. *virens*) and T. *ornata* which were reared in confinement.

Racial variation in the southern populations of Caprimulgus rufigena Smith

by P. A. CLANCEY

Received 7th September, 1965

Bowen (1930) was the first worker to propose the subdivision of the southern block of populations currently grouped in the nominotypical race of *C. rufigena* Smith, 1845: eastern Cape Province, South Africa, by proposing *C. r. quanzae* Bowen, 1930: Vila General Machado, Bie-Cuando Cubango, Angola. Bowen's Angolan race has not been generally accepted by workers (see in particular Chapin (1939) and Traylor (1960)), but the name has in recent years again come into some prominence through its use by Grant and Mackworth-Praed (1954; 1962) for the populations of northern South-West Africa and Angola.

During the course of a recent study of southern African nightjars, I had cause to examine fairly adequate material of *C. rufigena* from most of its established range in zoogeographical South Africa, the material used being drawn from the collections of the Durban and South African Museums, and the National Museum of Rhodesia, Bulawayo. Critical

study of the assembled material shows that the populations which breed in South-West Africa, the northern Cape in Gordonia, Kuruman and Bechuanaland districts, and western Bechuanaland Protectorate and the Kalahari, can be arranged in a satisfactory race, as outlined by Grant and Mackworth-Praed, on the basis of lighter and greyer upper parts, with much reduced black and sepia scapular patches and a more laterally constricted coronal streak. The hind-neck band inclines more to tawny than ochraceous, and the ear-coverts are also rustier, less brown. There also appears to be a fairly convincing size difference, though more measurements of adult birds from South-West Africa and Bechuanaland are needed before this can be satisfactorily settled, the wings of 39 measuring 153 -161, as against 160-173 mm. in a long series from the Cape, Transvaal and Rhodesia. Three adult 33 from South-West Africa have tails 117, 117.5 and 119, while 10 33 from Cape and Transvaal localities have tails of 119, 120, 121, 122, 124, 127, 127.5, 129, 132, 138 mm.

For the pale, greyish backed, deserticolous populations of C. rufigena, Grant and Mackworth-Praed use C. r. quanzae, named on a population of a high rainfall area of Angola. I have seen no material from Angola. but a good series from Zambia shows no marked difference in colour or size to C. r. rufigena, as understood on the basis of topotypical Cape material, and I believe both Chapin and Traylor to be correct in their assumption that C. r. quanzae is a synonym of C. r. rufigena. Grant and Mackworth-Praed, however, overlooked the earlier and quite unequivocal name Caprimulgus damarensis Strickland, 1852: Damaraland (vide Strickland, in Jardine's Contr. Ornith., 1852, p. 123), which is available for the pale, greyish dorsalled South-West African, northern Cape and western and south-western Bechuanaland Protectorate populations; also presumably (fide Grant and Mackworth-Praed) those of south-western

and southern Angola.

The paler coloration and reduction in size of the dark coronal and scapular striae in C. r. damarensis is evidently an adaptation in sympathy with the lighter substrate of the arid biomes inhabited by this taxon during the period of its nidification (c. October—March). C. r. rufigena is a form of the moist east of southern Africa and areas to the northward, with a darker substrate, its range in the south thrusting south-westwards into the Karoo of the Cape. Both C. r. rufigena and C. r. damarensis are highly migratory, spending the southern winter months further north in Africa, C. r. rufigena at least reaching Nigeria, the Cameroons and the Sudan, but the apparent trends towards shorter wing and tail-lengths in C. r. damarensis presuppose that the two taxa are allohiemal.

For the loan of material I am indebted to Professor J. M. Winterbottom, Director of the Percy FitzPatrick Institute of African Ornithology, Rondebosch, and Mr. M. P. Stuart Irwin, Keeper of Vertebrates, National

Museum of Rhodesia, Bulawayo.

References:

Bowen, W. W., 1930. Proc. Acad. Nat. Sci. Philad., vol. LXXXII, pp. 1, 2.

Chapin, J. P., 1939. Birds Belgian Congo, part 2, p. 423 (footnote). Grant, C. H. B., and Mackworth-Praed, C. W., 1954. Bull. Brit. Orn. Club, vol. LXXIV, 3, p. 34.

Mackworth-Praed, C. W., and Grant, C. H. B., 1962. Birds Southern Third Africa, vol.

Traylor, M. A., 1960. Pub. Cult. Comp. Diam. Angola, Lisboa, No. 51, p. 154.